

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method of manufacturing a display panel, the method comprising the steps of:

providing a supporting bed, the supporting bed including a first supporting bed and a second supporting bed positioned on the first supporting bed, the first supporting bed having a first thermal expansion coefficient, the second supporting bed having a second thermal expansion coefficient and the second supporting bed having a first surface with a perimeter;

forming a material layer on a substrate, the substrate having a third expansion coefficient and a second surface; and

positioning the substrate on the second supporting bed such that the second surface of the substrate touches the first surface of the second supporting bed and the second surface of the substrate is positioned entirely within the perimeter of the first surface of the second supporting bed; and

heating and baking the material layer formed on the substrate while maintaining the position of the second surface of the substrate entirely within the perimeter of the first surface of the second supporting bed which is placed on a supporting bed;

wherein the supporting bed includes a first supporting bed and a second supporting bed placed on the first supporting bed;

wherein a difference between ~~in the third~~ thermal expansion coefficient ~~between the second supporting bed and the substrate is set~~ first thermal expansion coefficient is smaller than a difference ~~in between the second~~ thermal expansion coefficient ~~between the first supporting bed and the substrate~~ first thermal expansion coefficient.

, and

wherein the substrate is placed on the second supporting bed such that the second supporting bed exists around the substrate during the heating and baking step for heating and baking.

2. (Currently Amended) The manufacturing method of claim 1, wherein the second

supporting bed is a bar-like member ~~placed~~ positioned on the first supporting bed.

3. (Currently Amended) The manufacturing method of claim 1, wherein the second supporting bed is ~~made of a~~ metal plate containing titanium.

4. (Currently Amended) The manufacturing method of claim 1, wherein at least one of the first and the second supporting beds includes a movement suppressing ~~means~~ device configured to suppress the for suppressing movement of the second supporting bed ~~on relative to~~ the first supporting bed.

5. (Currently Amended) The manufacturing method of claim 1, wherein the second supporting bed ~~is split into~~ includes a plurality of second beds, and ~~during~~ the heating and baking ~~step includes heating and baking a sheet of the substrate while straddling the substrate straddles~~ the plurality of the ~~second supporting~~ second beds ~~are heated and baked, and wherein movement of each of the second beds the second supporting beds are is regulated~~ limited such that a thermally expanding ~~directions~~ direction of each of the second beds ~~of the respective second supporting beds agree~~ coincides with ~~or approximate to~~ a thermally expanding direction of the substrate.

6. (Currently Amended) The manufacturing method of claim 5, wherein a thermal expansion center ~~points~~ point of each of the second beds ~~the respective second supporting beds are is regulated~~ configured to agree align with ~~one~~ a single point on the first supporting bed.

7. (Currently Amended) The manufacturing method of claim 5, wherein each of the second beds ~~the second supporting beds~~ is ~~made of a~~ metal plate containing titanium.

8. (Currently Amended) A supporting bed for heating and baking on which a substrate to be used in a display panel is ~~placed for being heated and baked, the substrate being~~ for use in a display panel and including a first thermal expansion coefficient and a first surface.

the supporting bed comprising:

a first supporting bed having a second thermal expansion coefficient; and

a second supporting bed having a third thermal expansion coefficient and a second surface with a perimeter, the second supporting bed configured to be placed on the first supporting bed,

wherein a difference ~~in-between the third~~ thermal expansion coefficient between the second supporting bed and the substrate ~~first thermal expansion coefficient is set smaller than a difference in-between the second~~ thermal expansion coefficient between the first supporting bed and the substrate ~~first thermal expansion coefficient, and~~

wherein the second supporting bed ~~has a structure~~ is configured such that when the substrate is placed on the second supporting bed the first surface of the substrate touches the second surface of the second supporting bed; and the substrate ~~the second supporting bed exists around the substrate~~ is positioned entirely within the perimeter of the second surface of the second supporting bed.

9. (Currently Amended) The supporting bed of claim 8, wherein the first supporting bed has a third surface with a first portion and a groove on its surface therein, on which the second supporting bed is placed, and the second supporting bed is formed ~~of from a thin plate shaping constructed and arranged such that one portion of the second supporting bed is adjacent along at least the first portion of the third surface and another portion of the second supporting bed is positioned within the groove of the first supporting bed.~~

10. (Original) The supporting bed of claim 8, wherein the second supporting bed has bumps and dips.

11. (Currently Amended) The supporting bed of claim 8, wherein the second supporting bed is a bar-like member ~~placed~~ positioned on the first supporting bed.

12. (Currently Amended) The supporting bed of claim 8, wherein the second

supporting bed is ~~made of a~~ metal plate containing titanium.

13. (Currently Amended) The supporting bed of claim 8, wherein at least one of the first and the second supporting beds has a movement suppressing ~~means~~ device configured to suppress for suppressing movement of the second supporting bed ~~on~~ relative to the first supporting bed.

14. (Currently Amended) The supporting bed of claim 8, wherein the second supporting bed includes is split into a plurality of second beds, and a sheet of the substrate is configured to straddle straddles the plurality of the second supporting second beds, and wherein at least one of the first supporting bed and the supporting every one of the second bed beds have has a regulating section ~~which regulates~~ configured to limit movement of each of the second beds the second supporting beds such that a thermally expanding directions direction of every one of the second beds the respective second supporting beds agree coincides with or approximate to a thermally expanding direction of the substrate.

15. (Currently Amended) The supporting bed of claim 14, wherein the regulating section is configured to limit movement of each of the second beds regulates such that a thermal expansion center points point of each of the second bed the respective second supporting beds agree is aligned with one a single point on the first supporting bed.

16. (Currently Amended) The supporting bed of claim 458, ~~wherein the further comprising:~~

a plurality of regulating section sections;

wherein the second supporting bed includes a plurality of second beds, and the substrate is configured to straddle the plurality of second beds,

wherein each of the regulating sections is configured to limit movement of a predetermined one of the second beds such that a thermal expansion center point of each of the second beds is aligned with a single point on the first supporting bed, and

~~wherein each of the regulating sections includes a regulating pin provided to on the first supporting bed and an opening provided to in the second supporting bed the predetermined second bed, which the regulating pin being configured to fit in the opening is to be fit to the regulating pin and, the opening having a length and a width, the length being greater than the width and a has a long axis along an extended line bisecting the opening along the length of the opening toward the one point in the direction of the single point on the first supporting bed.~~

17. (Currently Amended) The supporting bed of claim 16, wherein an opening length “W” along the long axis length of the opening and a length “L” distance between a thermal expansion center point of ~~each of the second beds~~ the second supporting bed and a center of the opening is defined by formula (1) below:

$$W > (\text{thermal expansion coefficient of the second supporting bed}) \times T_f \times L - (1),$$

where, T_f = ~~is the~~ baking temperature, and L = ~~is the~~ length distance from the thermal expansion center point of ~~each of the second beds~~ the second supporting bed to the center of the opening, and W = ~~is the~~ opening length.

18. (Currently Amended) ~~The~~ A supporting bed of claim 14 for heating and baking a substrate, the substrate being for use in a display panel and having a first surface and a first thermal expansion coefficient, the supporting bed comprising:

a first supporting bed having a second thermal expansion coefficient;

a plurality of second supporting beds defining an outer perimeter, each of said second supporting beds having a second surface and a third thermal expansion coefficient, said second supporting beds being configured to be positioned on the first supporting bed; and

a regulating section configured to limit each of the plurality of second supporting beds in a thermally expanding direction;

wherein a difference between the third thermal expansion coefficient and the first thermal expansion coefficient is smaller than a difference between the second thermal expansion coefficient and the first thermal expansion coefficient.

wherein a portion of the substrate is configured to be placed on each of the second supporting beds such that the first surface touches each of the second surfaces, such that the substrate straddles the plurality of the second supporting beds, and such that the substrate is positioned entirely within the outer perimeter; and

wherein a distance between a center point of the substrate straddling the plurality of the second supporting beds and a thermal expansion center point of each of the second supporting ~~bed~~beds is related ~~with-to~~ a thermal expansion coefficient of the substrate and a thermal expansion coefficient of the second supporting bed, and the relation is expressed ~~in formula (2)~~ below by:

$$e < 1/(2 \times (\text{difference in thermal expansion coefficient between the substrate and the second supporting bed}) \times T_f) \quad \text{--- (2)}$$

where, e ~~is~~ is the distance between the center point of the substrate and the thermal expansion center point of each of the second supporting ~~bed~~beds, and T_f ~~is~~ is the baking temperature.

19. (Currently Amended) The supporting bed of claim 14, wherein the second supporting bed is ~~made of a~~ metal plate containing titanium.